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(54) **LITHOGRAPHIC PLATES**

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(56) **References Cited**

**U.S. PATENT DOCUMENTS**

3,673,140 \* 6/1972 Ackerman et al. .... 522/14  
4,687,729 \* 8/1987 Cadwell et al. .... 430/302  
5,262,275 \* 11/1993 Fan ..... 430/273.1  
5,360,694 \* 11/1994 Thien et al. .... 430/200

5,454,310 \* 10/1995 Hayes ..... 101/148  
5,607,816 \* 3/1997 Fitzgerald et al. .... 430/271.1  
5,654,125 \* 8/1997 Fan et al. .... 430/306  
5,713,287 2/1998 Gelbart ..... 101/467  
5,785,784 \* 7/1998 Chesley et al. .... 156/66  
5,795,698 \* 8/1998 Fitzgerald et al. .... 430/281.1

**FOREIGN PATENT DOCUMENTS**

0164128 12/1985 (EP) .  
0703499 3/1996 (EP) .  
0764522 3/1997 (EP) .  
0768172 4/1997 (EP) .  
0769724 4/1997 (EP) .  
2284684 6/1995 (GB) .  
4-39367 \* 2/1992 (JP) .  
9700777 1/1997 (WO) .

**OTHER PUBLICATIONS**

JPO Abstract JP404039367A—English Abstract (File:J-PAB) of JP 4-39367 Published on Feb. 10, 1992.\*  
Derwent Abstract 1992-093963—English Abstract (File:DWP1) of JP 4-39367 Published on Feb. 10, 1992.\*  
J. Honablew, SPIE Proceedings, 390, 111-115 (Jan., 1983).  
Caractere, 46 (410), 26 (Sep. 26, 1995).

\* cited by examiner

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(57) **ABSTRACT**

A method for preparing a printing form and a method of printing are disclosed. A coating of a radiation sensitive ink on a lithographic support having a hydrophilic surface is imaged. The unexposed areas of the coating are removed to produce a printing form, which is used for printing. Preferably, the same radiation sensitive ink is used for printing as is used in the coating, and, preferably, the desired printing run length is predetermined and the thickness of the coating determined according to the desired run length.

**36 Claims, No Drawings**